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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/662,836	09/15/2003	Iulian Gheorghe	02-36	1217

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EXAMINER

EDMONDSON, LYNNE RENEE

ART UNIT PAPER NUMBER

1725

DATE MAILED: 02/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/662,836

Applicant(s)

GHEORGHE, IULIAN

Examiner

Lynne Edmondson

Art Unit

1725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Election/Restrictions***

1. Claims 34-52 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 6/23/05.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Waldron et al. (USPN 6168067 B1).

Waldron teaches a method of welding Al alloy by aging before and after welding (col 3 line 36 – col 4 line 5 and col 5 lines 22-36) to a predetermined temperature for a predetermined time to induce precipitation hardening (col 6 lines 12-24), particularly to temperatures between 100 C and 300 C for a period of hours (col 6 line 61 – col 7 line 40).

4. Claims 1-6 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Evancho et al. (USPN 4082578).

Evancho teaches a method of welding 2xxx Al alloy (col 2 lines 67-69) by aging before (col 6 lines 29-48, col 10 lines 20-42 and col 11 lines 3-16) and after welding to a predetermined temperature for a predetermined time to induce precipitation hardening (col 15 lines 30-42 and claims 7, 26 and 31).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2-12 and 14-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Waldron et al. (USPN 6168067 B1) in view of Park (USPN 4589932).

Waldron teaches a method of welding Al alloy by aging before and after welding (col 3 line 36 – col 4 line 5 and col 5 lines 22-36) to a predetermined temperature for a predetermined time to induce precipitation hardening (col 6 lines 12-24), particularly to temperatures between 100 C and 300 C for a period of hours (col 6 line 61 – col 7 line 40). However the time and tempering schedules are not further disclosed. Neither are the alloys further disclosed.

Park teaches aging of Al alloys in series 2xxx, 6xxx and 7xxx such as 2024, 7475, 6061 (col 9 lines 30-34) using known tempering schedules which include but are not limited to T5 and T6 which take place at typical temperatures of 220 F to 350 <sup>C</sup> for a

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typical period of hours (figures 2, 3, col 1 lines 25-61, col 6 lines 56-67, col 13 line 45 – col 14 line 9 and Table VII). The members are welded (col 14 lines 63-68).

It would have been obvious to one of ordinary skill in the art at the time of the invention to use known tempering schedules to maintain the desired strength, stiffness and ductility in both the weld zone and the heat-affected region in a simple and predictable manner. Al alloys in the 2xxx, 6xxx and 7xxx series are well known, cost-effective aircraft alloys.

### ***Response to Arguments***

7. Regarding applicant's argument that Waldron does not teach aging prior to welding see column 3 lines 36-47 which teach a preliminary aging (precipitation hardening) step.

8. Therefore the 102 rejection of claims 1 and 13 as anticipated by Waldron stands. The 103 rejection of claims 2-12 and 14-33 as obvious over Waldron in view of Park also stands.

### ***Conclusion***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lynne Edmondson whose telephone number is (571) 272-1172. The examiner can normally be reached on Monday through Thursday from 6:30 a.m. to 5 p.m.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lynne Edmondson  
Primary Examiner  
Art Unit 1725

*LE 4/4/06*

LRE